AD-A110 935 FOREIGN TECHNOLOGY DIV WRIGHT-PATTERSON AFB OH F/G 13/8
A STAND FOR THE GRINDING AND POLISHING OF ASPHERICAL SURFACES,(U)
JAN 82 N P ZAKAZNOV, V V GORELIK, L V IVANOV
UNCLASSIFIED FTD-ID(RS)T-1530-81 NL

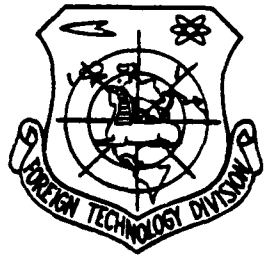
FTD-ID(RS)T-1530-81

FOREIGN TECHNOLOGY DIVISION

A STAND FOR THE GRINDING AND POLISHING OF ASPHERICAL SURFACES

by

N.P. Zakaznov, V.V. Gorelik, L.V. Ivanov



EDITED TRANSLATION

FTD-ID(RS)T-1530-81 29 January 1982

MICROFICHE NR: FTD-82-C-000108

A STAND FOR THE GRINDING AND POLISHING OF ASPHERICAL SURFACES

By: N.P. Zakaznov, V.V. Gorelik, L.V. Ivanov

English pages: 3

Source: USSR Patent Nr. 218688, 22 Dec 1969, pp. 1-2

Country of origin: USSR
Translated by: Joseph E. Pearson
Requester: USAMICOM
Approved for public release; distribution unlimited.

U. S. BOARD ON GEOGRAPHIC NAMES TRANSLITERATION SYSTEM

Block	Italic	Transliteration	Block	Italic	Transliteration
А а	*А а*	A, a	Р р	*Р р*	R, r
Б б	*Б б*	B, b	С с	*С с*	S, s
В в	*В в*	V, v	Т т	*Т т*	T, t
Г г	*Г г*	G, g	У у	*У у*	U, u
Д д	*Д д*	D, d	Ф ф	*Ф ф*	F, f
Е е	*Е е*	Ye, ye; E, e*	Х х	*Х х*	Kh, kh
Ж ж	*Ж ж*	Zh, zh	Ц ц	*Ц ц*	Ts, ts
З з	*З з*	Z, z	Ч ч	*Ч ч*	Ch, ch
И и	*И и*	I, i	Ш ш	*Ш ш*	Sh, sh
Й й	*Й й*	Y, y	Щ щ	*Щ щ*	Shch, shch
К к	*К к*	K, k	Ъ ъ	*Ъ ъ*	"
Л л	*Л л*	L, l	Ы ы	*Ы ы*	Y, y
М м	*М м*	M, m	Ь ь	*Ь ь*	'
Н н	*Н н*	N, n	Э э	*Э э*	E, e
О о	*О о*	O, o	Ю ю	*Ю ю*	Yu, yu
П п	*П п*	P, p	Я я	*Я я*	Ya, ya

*__e__ initially, after vowels, and after ъ, ь, __ë__ elsewhere.
When written as ё in Russian, transliterate as yë or ë.

RUSSIAN AND ENGLISH TRIGONOMETRIC FUNCTIONS

Russian	English	Russian	English	Russian	English
sin	sin	sh	sinh	arc sh	sinh^{-1}
cos	cos	ch	cosh	arc ch	cosh^{-1}
tg	tan	th	tanh	arc th	tanh^{-1}
ctg	cot	cth	coth	arc cth	coth^{-1}
sec	sec	sch	sech	arc sch	sech^{-1}
cosec	csc	csch	csch	arc csch	csch^{-1}

Russian	English
rot	curl
lg	log

A Stand for the Grinding and Polishing of Aspherical Surfaces

Originators of the invention: N. P. Zakaznov, V. V. Gorelik, L. V. Ivanov.

Applicants: Moscow Institute of Geodesy, Aerial Photography and Cartography Engineers and the Krasnogorsk Mechanical Plant.

Stands are known for the grinding and polishing of optical components, which (the stands) contain a tool with variable curvature, connected by means of a crank mechanism with an articulation.

The proposed stand is distinguished from the known stands by the fact, that it is equipped with a copying mechanism, and the crank mechanism is connected with the latter by means of an articulation, which makes it possible to increase the processing accuracy and to obtain aspherical surfaces of different radii.

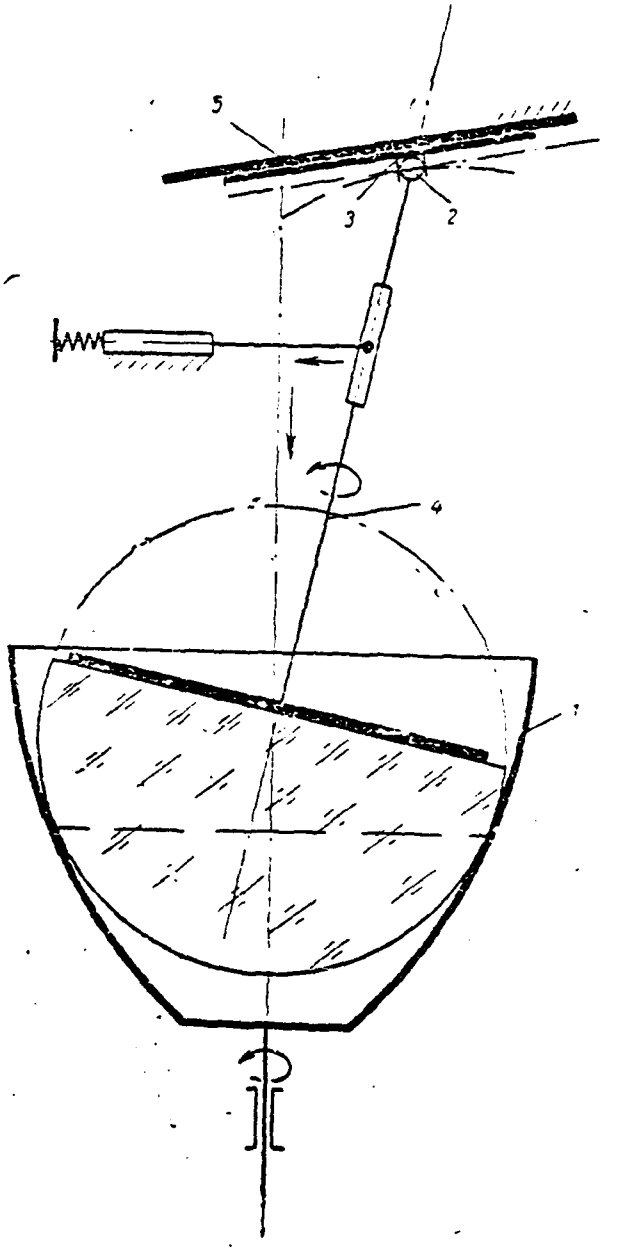
The stand being described is schematically depicted in vertical cross section in the drawing.

For the shape forming of aspherical surfaces tool 1 is employed, which is turned with the aid of articulation 2, , placed in housing 3 and which imparts motion to crank mechanism 4, connected by housing 3 with copying device 5.

A surface of the required curvature is obtained, in this case, by maintaining the pre-calculated depth of the mutual immersion of the tool and the work-piece, monitored during the processing. The turning of the component (under the effect of the spring and the copying device) by a specific angle, the magnitude of which depends on the shape of the copying device, corresponds to any, as little as necessary, movement of a component with a convex surface downward.

The Patent Claims:

The stand for the grinding and the polishing of aspherical surfaces of optical components, which contains a tool with variable curvature of the working surface, connected by means of a crank mechanism with an articulation, which is distinguished by the fact, that, for the purpose of obtaining surfaces of different radii of curvature and increasing the proce-sing accuracy, the stand is equipped with a copying device, and the crank mechanism is connected with the latter by means of an articulation accomodated in the housing.


5
3
2
4


FILMED
8